



**Dale E Dawkins**  
Director - Vehicle Compliance and  
Safety Affairs

August 31, 1993

RECEIVED

SEP 1 1993

FCC - MAIL ROOM

Mr. William S. Caton, Acting Secretary  
Federal Communications Commission  
1919 M Street N. W.  
Washington, DC 20036

**RE: Petition for Rulemaking by General Motors Research Corporation  
Request for Automotive Radar Frequency Band-RM 8308**

Dear Mr. Caton:

Chrysler Corporation submits the following comments relative to the General Motors' petition submitted to the Federal Communications Commission regarding the amendment to the Code of Federal Regulations, Title 47, Parts 2 and 15 of the rules, to allocate a specific radio spectrum for automotive radar. General Motors requests that the 76-77 GHz frequency band be allocated for automotive radar applications. This would enable the manufacturer to develop radar systems to enhance automotive safety.

Chrysler Corporation supports the allocation of a radio frequency band for automotive radar, but believes that this petition is premature. While we understand that European regulatory agencies are considering this same frequency band for automotive radar, more input from other U.S. manufacturers involved with this technology is needed before rulemaking should progress towards finalizing a frequency band. We believe that this will ensure that radar systems are developed with the high reliability required for this type of system. Therefore, we recommend that the FCC hold the General Motors' petition in abeyance until the industry has reached an agreement on an acceptable automotive radar frequency band. This is being accomplished by means of a task force assembled at the American Automobile Manufacturers Association.

The attached comments identify our concerns with the petition for frequency band allocation for automotive radar.

Please contact Mr. Len Blazic of my staff at (313) 370-8548 if you have questions concerning these written comments.

Sincerely,

D. E. Dawkins

## Attachments

Chrysler Corporation  
CIMS 429-10-02  
Featherstone Road Center  
2301 Featherstone Road  
Auburn Hills MI 48326-2808  
313 370 8206 Fax 313 370 8567

No. of Copies rec'd  
List A B C D E

**Chrysler Corporation Comments**  
**Petition for Frequency Band**  
**Automotive Radar Applications**  
**RM-8308**

RECEIVED

SEP 11 1993

FCC - MAIL ROOM

**Definition/Description of Proposed Radar Band**

The world automobile industry is working towards utilizing radar to enhance vehicle occupant safety by providing drivers with advanced crash avoidance technology. These systems may be used to activate the vehicle brake systems to further aid the driver in avoiding impact with objects in front of the vehicle. Additionally, vehicle radar would be a major component in the intelligent vehicle highway systems that are currently being developed for future application to our highway system. Chrysler Corporation believes that the proposed frequency allocation for automotive radar is not described or defined sufficiently to provide the needed assurance for continued development of these sophisticated systems.

**Industry Acceptance of Radar Frequency Band**

While we believe that the proposed frequency band may be appropriate for this task, the absence of industry consensus makes approval of this request risky and potentially counterproductive. Chrysler Corporation has been working with outside suppliers to develop automotive radar systems that will enhance automotive vehicle safety. This development activity has not progressed to the stage of defining specific radar frequency parameters to ensure that systems operate with the highest reliability and performance. Furthermore, other automotive manufacturers may also be developing these advanced systems. The agency needs to understand fully all development aspects of these radar systems before a frequency band can be allocated. The development of a single frequency band that allows various automotive radar systems to function could preclude individual manufacturers from requesting unique frequency allocations.

**Amateur Radio Operators**

As noted in the petition, this requested frequency band has already been allocated for the use of amateur radio operators. Since there is potential shared usage of the requested frequency band, concerns about interference must be resolved before a frequency band can be approved for automotive radar. For example, radio amateurs have fewer constraints on output power and modulation than other users. Although it is assumed that there are few amateurs currently utilizing this band, the situation could change significantly as "Millimeter Technology" matures and hardware becomes more readily available. Before rulemaking can proceed to the allocation of a frequency band for automotive radar, considerations regarding interference must be given top priority for the protection of these safety systems. It may be necessary to limit the emissions and/or modulation parameters of other users of the requested spectrum to preclude interference.

### **Recommendations**

Chrysler Corporation recommends that the FCC hold in abeyance the General Motors' petition to allow a frequency band for automotive radar. We are participating in task forces at the American Automobile Manufacturers Association and the IVHS America to attempt to formulate an industry supported automotive radar frequency proposal. A conclusion is expected by the end of 1993.

RECEIVED

SEP 1 1993

FCC - MAIL ROOM